ABSTRACT

A Method and apparatus for dynamically discovering and utilizing unused resources for practical and efficient creation of optimized network mechanisms for data

5   distribution. Proposed techniques for data distribution, assembly, routing and scheduling in broadband networks can be implemented as content-level server platform architecture enabled by application-level control plane. Such a platform accelerates content transfer, mirroring and replication. It applies coordinated data partitioning and resource discovery and sharing of information replication by multiple network systems.

10   Furthermore, it harvests the unutilized bandwidth in the network by disassembling the large content to be distributed into different components. These components are then routed in spatially and temporally diverse routes through multiple paths and trees and assembled at the destination nodes. The result is accelerated content distribution, added security, scalability and robustness. No modifications of existing network

15   communication protocols is required.